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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/531,387

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Shigeaki Furukawa

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EXAMINER

PATANKAR, ANEETA V

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/531,387	Applicant(s) FURUKAWA ET AL.	
	Examiner ANEETA PATANKAR	Art Unit 4134	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 4/15/05 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4/15/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 1 and 4-6** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,707,775 to *Miyagawa et al* in further view of U.S. Pub. No. 2002/0136112 A1 to *Kadlec et al* in further view of U.S. Patent No. 5,608,715 to *Yokogawa et al*.

As to claim 1, *Miyagawa* discloses a method of reproducing a multilayer recording medium comprising: a converging laser beam output from a light source on a target information layer, detecting the reflected light from the target information layer mainly to generate an information signal (Fig. 3, columns 3-4, lines 56-65); detecting a cross talk light from information layers other than the target information layer to generate a cross talk signal (Figs. 4-7, columns 4-6, lines 57-16); reading a predetermined information from the multilayer recording medium, the predetermined information indicating a ratio of the cross talk light leaking from the other information layers to a reflected light from the target information layer (Column 5, lines 27-52); *Miyagawa* is deficient to disclosing a multilayer recording medium including at least three informational layers.

However, *Yokogawa* discloses a multilayer recording medium including at least three informational layers (Fig. 22-23, columns 14-16, lines 38-39).

Miyagawa and *Yokogawa* are analogous art because they are from the same field of endeavor with respect to optical mediums.

At the time of the invention, it would have been obvious to a person of ordinary skilled in the art to create a multilayer recording medium with three or more informational layers. The suggestion/motivation would have been in order to store more data on the same multilayer medium (*Yokogawa*, columns 13-14, lines 60-25).

Kadlec discloses adjusting a gain of the cross talk signal based on the read predetermined information (Paragraph 88); amplifying the cross talk signal based on the gain (Paragraph 88); and removing the amplified cross talk signal from the information signal from the target information layer to generate a reproduction signal indicating information recorded in the target information layer (Paragraph 88).

Kadlec and *Miyagawa* are analogous art because they are from the same field of endeavor with respect to optical mediums.

At the time of the invention, it would have been obvious to a person of ordinary skilled in the art to create a method of detecting cross talk to generate a cross talk signal and finding the gain of the cross talk signal, amplifying it, and remove the amplified cross talk signal. The suggestion/motivation would have been in order to eliminate or reduce cross talk (*Kadlec*, Paragraph 88).

As to **claim 4**, *Kaldec* discloses the reproducing method wherein the predetermined information includes reflectance information and transmittance information of the other information layers to which a laser beam is irradiated from a surface of the layer opposite to a light source (Paragraphs 77-87). In addition, the same motivation is used as the rejection for claim 1.

As to **claim 5**, *Yokogawa* discloses the reproducing method wherein, when the multilayer recording medium includes three information layers, the predetermined information includes reflectance and transmittance regarding two information layers (Figs. 22-23, columns 14-16, lines 38-39). In addition, the same motivation is used as the rejection for claim 1.

As to **claim 6**, *Miyagawa* discloses the reproducing method wherein the cross talk signal includes a signal from the second layer from the target layer on the light source side (Figs. 4-7, columns 4-6, lines 57-16). In addition, the same motivation is used as the rejection for claim 1.

3. **Claims 7 and 10** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,707,775 to *Miyagawa et al* in view of U.S. Pub. No. 2002/0136112 A1 to *Kadlec et al.* in further view of U.S. Patent No. 5,608,715 to *Yokogawa et al.*

As to **claim 7**, *Miyagawa* discloses a reproducing device of a multilayer recording medium comprising: a light source operable to irradiate a laser beam onto one information layer to read information recorded in the multilayer recording medium (Fig.1 and 3, columns 3-4, lines 38-35); a first detector

operable to detect a reflected light from the one information layer mainly to generate an information signal (Fig.3, column 3, lines 56-65); a second detector operable to detect a reflected light from the other information layers than the one information layer to generate a cross talk signal (Columns 3-5, lines 56-52); a cross talk detector operable to read a cross talk information from a management area of the multilayer recording medium, the cross talk information indicating a ratio of the cross talk light leaking from the other information layers on the light source side to a reflected light from the one information layer (Columns 4-5, lines 57-52). *Miyagawa* is deficient to a multilayer recoding medium comprising at least three information layers.

However, *Yokogawa* discloses a multilayer recording medium including at least three informational layers (Fig. 22-23, columns 14-16, lines 38-39).

Miyagawa and *Yokogawa* are analogous art because they are from the same field of endeavor with respect to optical mediums.

At the time of the invention, it would have been obvious to a person of ordinary skilled in the art to create a multilayer recording medium with three or more informational layers. The suggestion/motivation would have been in order to store more data on the same multilayer medium (*Yokogawa*, columns 13-14, lines 60-25).

Kadlec discloses an amplifier operable to adjust a gain of the cross talk signal from the second detector based on the read cross talk information, and amplify the cross talk signal based on the gain (Paragraph 88); and a

differentiating unit operable to obtain a difference between the information signal from the first detector and the cross talk signal amplified by the amplifier to generate a reproduction signal indicating information recorded in the one information layer (Paragraph 88).

Kadlec and *Miyagawa* are analogous art because they are from the same field of endeavor with respect to optical mediums.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to create a method of detecting cross talk to generate a cross talk signal and finding the gain of the cross talk signal, amplifying it, and remove the amplified cross talk signal. The suggestion/motivation would have been in order to eliminate or reduce cross talk (*Kadlec*, Paragraph 88).

As to **claim 10**, *Miyagawa* discloses a reproducing device wherein the second detector is provided so as to surround the first detector (Columns 3-5, lines 57-52).

4. **Claims 11-15** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,707,775 to *Miyagawa et al* in further view of U.S. Patent No. 5,608,715 to *Yokogawa et al*.

As to **claim 11**, *Miyagawa* discloses a multilayer recording medium irradiated with a laser beam from a light source to reproduce information comprising: a management region to store cross talk information indicating a ratio of light leaking from information layers other than a specific information layer on the side of the light source to a reflected light from the specific information

layer during reproduction of the specific information layer (Column 5, lines 27-52). *Miyagawa* is deficient to disclosing a multilayer recoding medium comprising at least three informational layers.

However, *Yokogawa* discloses a multilayer recording medium including at least three informational layers (Fig. 22-23, columns 14-16, lines 38-39).

However, *Yokogawa* discloses a multilayer recording medium including at least three informational layers (Fig. 22-23, columns 14-16, lines 38-39).

Miyagawa and *Yokogawa* are analogous art because they are from the same field of endeavor with respect to optical mediums.

At the time of the invention, it would have been obvious to a person of ordinary skilled in the art to create a multilayer recording medium with three or more informational layers. The suggestion/motivation would have been in order to store more data on the same multilayer medium (*Yokogawa*, columns 13-14, lines 60-25).

As to **claim 12**, *Yogogawa* discloses the multilayer recording medium wherein thicknesses of a plurality of middle layers to isolate the plurality of information layers are substantially equal (Fig. 11, columns 8-9, lines 11-14). In addition, the same motivation is used as the rejection for claim 1.

As to **claim 13**, *Kaldec* discloses the multilayer recording medium wherein the cross talk information includes reflectance information in the other information layer when a laser beam is applied from a surface opposite to an incident side of

the light source (Paragraphs 77-87). In addition, the same motivation is used as the rejection for claim 1.

As to **claim 14**, *Yokogawa* discloses the information medium wherein the management region is provided on one information layer and information is not recorded in a region on the other information layer corresponding to the management region (Fig. 22-23, columns 14-16, lines 38-39). In addition, the same motivation is used as the rejection for claim 1.

As to **claim 15**, *Yokogawa* discloses the information medium wherein the management region is provided on the information layer which is closes to the light source (Fig. 22-23, columns 14-16, lines 38-39). In addition, the same motivation is used as the rejection for claim 1.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANEETA PATANKAR whose telephone number is (571)272-9773. The examiner can normally be reached on Monday-Friday 7:30am-5:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Derrick Ferris can be reached on (571)272-4483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 4134

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Aneeta V. Patankar

Patent Examiner

Art Unit 4134

/AVP/

/Derrick W Ferris/

Supervisory Patent Examiner, Art Unit 4134